

POWER CONVERTER CONTROLLER HAVING EVENT GENERATOR FOR DETECTION OF EVENTS AND GENERATION OF DIGITAL ERROR

ABSTRACT OF THE DISCLOSURE

[0052] A power converter comprises an event detection module detecting various events of the power converter in real time at the switching frequency of a switch in the power converter according to predetermined criteria. A pulse generator generates control signals for controlling the on-times and off-times of the switch based on the various detected events. The events detected by the event detection module include a detection of a “knee” in the reflected secondary voltage on the auxiliary windings of the transformer in a primary side sensing flyback power converter, and detection of a digital error quantifying the difference between the reference voltage and the reflected secondary voltage on the auxiliary windings of the transformer in time domain.